

ABSTRACT OF THE DISCLOSURE

The difference in voltages measured upstream and downstream of a pressure junction in a power distribution system produced by the energizing power is divided by the measured current to calculate a value that is a function of the

5 impedance of the pressure junction, which is monitored for deterioration. To eliminate noise resulting from dividing a small number by a large number and transients in the power distribution system, the impedance is calculated from the squares of the voltage differences and currents for a large number of samples, and the change between successive calculations is limited to produce a stable median value.